

What is claimed is:

- 1) A use of an antimicrobially effective amount of a mixture of 5-chloro-2-methyl-4-isothiazolin-3-one, 2-methyl-4-isothiazolin-3-one and 2-bromo-2-nitropropane-1,3-diol as a biocide in aqueous colorant preparations having a heavy metal ion concentration of not less than 20 ppm.
- 2) The use according to claim 1 wherein the colorant preparation is a recording fluid, in particular an ink jet ink.
- 3) The use according to claim 1 or 2 wherein the antimicrobially effective amount is 0.001% to 0.1% by weight and preferably 0.02% by weight, reckoned as solid and based on the total weight of the colorant preparation.
- 4) The use according to at least one of claims 1 to 3 wherein the mixing ratio of the individual constituents chloro-2-methyl-4-isothiazolin-3-one, 2-methyl-4-isothiazolin-3-one and 2-bromo-2-nitropropane-1,3-diol is (0.005 to 0.1):(0.005 to 0.05):1.
- 5) The use according to at least one of claims 1 to 4 wherein the colorant is a reactive dye, a direct dye, an acid dye, a disperse dye or a pigment and comprises a complexed heavy metal from the group consisting of Cu, Co, Ni, Fe, Cr and Al.
- 6) The use according to claim 5 wherein the colorant is C.I. Reactive Black 8, C.I. Reactive Black 31, C.I. Reactive Blue 7, C.I. Reactive Blue 14, C.I. Reactive Blue 21, C.I. Reactive Blue 28, C.I. Reactive Blue 38, C.I. Reactive Blue 82, C.I. Reactive Blue 89, C.I. Reactive Blue 158, C.I. Reactive Blue 182, C.I. Reactive Blue 190, C.I. Reactive Blue 203, C.I. Reactive Blue 216, C.I. Reactive Blue 220, C.I. Reactive Blue 244, C.I. Reactive Violet 1, C.I. Reactive Violet 5, C.I. Reactive Red 6, C.I. Reactive Red 23, C.I. Reactive Brown 18, C.I. Direct Blue 76, C.I. Direct Blue 84, C.I. Direct Blue 86, C.I. Direct Blue 87, C.I. Direct Blue 98, C.I. Direct Blue 199, C.I. Direct Blue 202, C.I. Direct Blue 290, C.I. Direct Black 112, C.I. Direct Brown 95, C.I. Direct Violet 47,

C.I. Acid Blue 87, C.I. Acid Blue 185, C.I. Acid Blue 249, C.I. Pigment Blue 15:1-15:4, C.I. Pigment Blue 17, C.I. Pigment Green 7, C.I. Pigment Green 37, C.I. Pigment Red 257, C.I. Pigment Red 271, C.I. Pigment Orange 65, C.I. Pigment Orange 68, C.I. Pigment Yellow 117, C.I. Pigment Yellow 129 or  
5 C.I. Pigment Yellow 153.

7) An aqueous colorant preparation comprising 0.1% to 50% by weight of at least one heavy metal complex colorant, 0.001% to 0.1% by weight of an antimicrobial mixture according to one or more of claims 1 to 4 and 10% to 90%  
10 by weight of deionized water, all based on the total weight (100% by weight) of the colorant preparation.

8) An aqueous colorant preparation comprising at least 20 ppm of heavy metal ions and 0.1% to 50% by weight of at least one colorant 0.001% to 0.1% by weight  
15 of an antimicrobial mixture according to one or more of claims 1 to 4 and 10% to 90% by weight of deionized water, all based on the total weight (100% by weight) of the colorant preparation.

9) The colorant preparation according to claim 7 or 8 which comprises a  
20 shading colorant from the group consisting of C.I. Acid Yellow 17 and C.I. Acid Yellow 23; C.I. Direct Yellow 86, C.I. Direct Yellow 98 and C.I. Direct Yellow 132; C.I. Reactive Yellow 37; C.I. Pigment Yellow 17, C.I. Pigment Yellow 74, C.I. Pigment Yellow 83, C.I. Pigment Yellow 97, C.I. Pigment Yellow 120, C.I. Pigment Yellow 139, C.I. Pigment Yellow 151, C.I. Pigment Yellow 155 and  
25 C.I. Pigment Yellow 180; C.I. Direct Red 1, C.I. Direct Red 11, C.I. Direct Red 37, C.I. Direct Red 62, C.I. Direct Red 75, C.I. Direct Red 81, C.I. Direct Red 87, C.I. Direct Red 89, C.I. Direct Red 95 and C.I. Direct Red 227; C.I. Acid Red 1, C.I. Acid Red 8, C.I. Acid Red 80, C.I. Acid Red 81, C.I. Acid Red 82, C.I. Acid Red 87, C.I. Acid Red 94, C.I. Acid Red 115, C.I. Acid Red 131, C.I. Acid Red  
30 144, C.I. Acid Red 152, C.I. Acid Red 154, C.I. Acid Red 186, C.I. Acid Red 245, C.I. Acid Red 249 and C.I. Acid Red 289; C.I. Reactive Red 21, C.I. Reactive Red 22, C.I. Reactive Red 23, C.I. Reactive Red 35, C.I. Reactive Red 63, C.I. Reactive Red 106, C.I. Reactive Red 107, C.I. Reactive Red 112,

- C.I. Reactive Red 113, C.I. Reactive Red 114, C.I. Reactive Red 126,  
C.I. Reactive Red 127, C.I. Reactive Red 128, C.I. Reactive Red 129,  
C.I. Reactive Red 130, C.I. Reactive Red 131, C.I. Reactive Red 137,  
C.I. Reactive Red 160, C.I. Reactive Red 161, C.I. Reactive Red 174 and  
5 C.I. Reactive Red 180; C.I. Pigment Red 122, C.I. Pigment Red 176, C.I. Pigment  
Red 184, C.I. Pigment Red 185 and C.I. Pigment Red 269; C.I. Direct Blue 199;  
C.I. Acid Blue 9 and C.I. Pigment Blue 15:1-15:4 in an amount of 0.001% to 5% by  
weight and in particular of 0.01% to 1% by weight, based on the dry weight of the  
entire colorant.